Aquatic Animal Health Standards Commission Report

March 2007

CHAPTER 2.1.17.

KOI HERPESVIRUS DISEASE

Article 2.1.17.1.

For the purposes of the *Aquatic Code*, koi herpesvirus disease (KHVD) means *infection* with the viral species koi herpesvirus (KHV) tentatively placed in the sub-family *Cyprinid herpesvirus* of the family Herpesviridae.

Methods for conducting surveillance and diagnosis of koi herpesvirus disease are provided in the *Aquatic Manual*.

Article 2.1.17.2.

Scope

The recommendations in this Chapter apply to: common carp (*Cyprinus carpio carpio*), ghost carp (*Cyprinus carpio goi*), koi carp (*Cyprinus carpio koi*) and common carp hybrids (e.g. *Cyprinus carpio x Carassius auratus*). These recommendations also apply to any other *susceptible species* referred to in the *Aquatic Manual* when traded internationally.

Article 2.1.17.3.

Commodities

- 1. When authorising the importation or transit of the following *commodities*, the *Competent Authorities* should not require any KHVD related conditions, regardless of the KHVD status of the *exporting country*, zone or *compartment*:
 - a) For the species referred to in Article 2.1.17.2. being used for any purpose:
 - i) <u>commodities</u> treated in a manner that kills the host and inactivates the <u>disease</u> <u>agent e.g.</u> <u>leather made from fish skin</u>, <u>pasteurised products and ready to eat meals</u>; and fish oil and fish meal intended for use in animal feeds commercially sterile canned fish;
 - ii) leather made from fish skin biological samples preserved for diagnostic applications in such a manner as to inactivate the disease agent.

- b) The following *commodities* destined for human consumption from the species referred to in Article 2.1.17.2. which have been prepared and packaged for direct retail trade in such a way as to minimise the likelihood of alternative uses:
 - chemically preserved products (e.g. smoked, salted, pickled, marinated, etc.);
 - ii) products (e.g. ready prepared meals and fish oil) that have been heat treated in a manner to ensure the inactivation of the pathogen;
 - iii) *eviscerated fish* (chilled or frozen) packaged for direct retail trade;
 - i<mark>i_v</mark>) fillets or cutlets (chilled or frozen);

 $\frac{\text{iii}}{\text{v}}$) dried eviscerated fish (including air dried, flame dried and sun dried).

For the *commodities* referred to in point 1b), Member Countries should consider introducing internal measures to prevent the *commodity* being used for any purpose other than for human consumption.

- 2. When authorising the importation or transit of the *commodities* of a species referred to in Article 2.1.17.2., other than those referred to in point 1 of Article 2.1.17.3., the *Competent Authorities* should require the conditions prescribed in Articles 2.1.17.7. to 2.1.17.12. relevant to the KHVD status of the *exporting country*, *zone* or *compartment*.
- 3. When considering the importation/transit from an exporting country, zone or compartment not declared free of KHVD of any live commodity of a species not covered in Article 2.1.17.2. but which could reasonably be expected to be a potential KHV vector, the Competent Authorities should conduct an risk analysis in accordance with the recommendations in the Aquatic Code of the risk of introduction, establishment and spread of KHVD, and the potential consequences, associated with the importation of the commodity prior to a decision. The exporting country should be informed of the outcome of this assessment.

Article 2.1.17.4.

Koi herpesvirus disease free country

A country may make a self-declaration of freedom from KHVD if it meets the conditions in points 1, 2, 3 or 4 below.

If a country shares a zone with one or more other countries, it can only make a self-declaration of freedom from KHVD if all the areas covered by the shared water are declared KHVD free countries or zones (see Article 2.1.17.5.).

1. A country where none of the *susceptible species* referred to in Article 2.1.17.2. is present may make a *self*-declaration of freedom from KHVD when basic biosecurity conditions have been continuously met in the country for at least the past 2 years.

OR

2. A country where the *susceptible species* referred to in Article 2.1.17.2. are present but there has never been any observed occurrence of the *disease* for at least the past 25 years despite conditions that are conducive to its clinical expression, as described in Chapter 2.1.17. of the *Aquatic Manual*, may make a *self-declaration of freedom* from KHVD when *basic biosecurity conditions* have been continuously met in the country for at least the past 10 years.

OR

- 3. A country where the last observed occurrence of the *disease* was within the past 25 years, or where the *infection* status prior to *targeted surveillance* was unknown; for example because of (e.g. the absence of conditions conducive to its clinical expression; as described in Chapter 2.1.17. of the *Aquatic Manual*, may make a *self-declaration of freedom* from KHVD when:
 - a) basic biosecurity conditions have been continuously met for at least the past 2 years; and
 - b) targeted surveillance, as described in Chapters 1.1.4. and 2.1.17. of the *Aquatic Manual*, has been in place for at least the last 2 years without detection of KHV.

OR

- 4. A country that has previously made a *self-declaration of freedom* from KHVD but in which the *disease* is subsequently detected may not make a *self-declaration of freedom* from KHVD again until when the following conditions have been met:
 - a) on detection of the *disease*, the affected area was declared an *infected zone* and a *buffer zone* was established; and
 - b) infected populations have been destroyed or removed from the *infected zone* by means that minimise the risk of further spread of the *disease*, and the appropriate *disinfection* procedures (see *Aquatic Manual*) have been completed; and
 - c) targeted surveillance, as described in Chapters 1.1.4. and 2.1.17. of the Aquatic Manual, has been in place for at least the last 2 years without detection of KHV; and
 - d) previously existing basic biosecurity conditions have been reviewed and modified as necessary and have continuously been in place for at least the past 2 years.

In the meantime, part of the non-affected area may be declared a free *zone* provided that it such part meets the conditions in point 3 of Article 2.1.17.5.

Article 2.1.17.5.

Koi herpesvirus disease free zone or free compartment

A zone or compartment within the territory of one or more countries not declared free from KHVD may be declared free by the Competent Authority(ies) of the country(ies) concerned if the zone or compartment meets the conditions referred to in points 1, 2, 3 or 4 below.

If a zone or compartment extends over more than one country, it can only be declared a KHVD free zone or compartment if all the Competent Authorities confirm that the conditions have been met.

1. A zone or compartment where none of the susceptible species referred to in Article 2.1.17.2. is present may be declared free from KHVD when basic biosecurity conditions have been continuously met in the zone or compartment for at least the past 2 years.

OR

2. A zone or compartment where the susceptible species referred to in Article 2.1.17.2. are present but there has never been any observed occurrence of the disease for at least the past 25 years despite conditions that are conducive to its clinical expression, as described in Chapter 2.1.17. of the Aquatic Manual, may be declared free from KHVD when basic biosecurity conditions have been continuously met in the zone or compartment for at least the past 10 years.

OR

- 3. A zone or compartment where the last observed occurrence of the disease was within the past 25 years, or where the infection status prior to targeted surveillance was unknown, for example (e.g. because of the absence of conditions conducive to its clinical expression, as described in Chapter 2.1.17. of the Aquatic Manual, may be declared free from KHVD when:
- a) basic biosecurity conditions have been continuously met for at least the past 2 years; and
 - b) targeted surveillance, as described in Chapters 1.1.4. and 2.1.17. of the Aquatic Manual, has been in place for at least the last 2 years without detection of KHV koi herpesvirus detection.

OR

- 4. A zone previously declared free from KHVD but in which the *disease* is subsequently detected may not be declared free from KHVD again until when the following conditions have been met:
 - a) on detection of the *disease*, the affected area was declared an *infected zone* and a *buffer zone* was established; and
 - b) infected populations have been destroyed or removed from the *infected zone* by means that minimise the risk of further spread of the *disease*, and the appropriate *disinfection* procedures (see *Aquatic Manual*) have been completed; and
 - c) targeted surveillance, as described in Chapters 1.1.4. and 2.1.17. of the Aquatic Manual, has been in place for at least the last 2 years without detection of KHV koi herpesvirus detection; and
 - d) previously existing basic biosecurity conditions have been reviewed and modified as necessary and have continuously been in place for at least the past 2 years.

Article 2.1.17.6.

Maintenance of free status

A country, zone or compartment that is declared free from KHVD following the provisions of points 1 or 2 of Articles 2.1.17.4. or 2.1.17.5. (as relevant) may maintain its status as KHVD free provided that *basic biosecurity conditions* are continuously maintained.

A country, zone or compartment that is declared free from KHVD following the provisions of point 3 of Articles 2.1.17.4. or 2.1.17.5. (as relevant) may discontinue targeted surveillance and maintain its status as KHVD free provided that conditions that are conducive to clinical expression of KHVD, as described in Chapter 2.1.17. of the Aquatic Manual, exist, and basic biosecurity conditions are continuously maintained.

However, for declared free zones or compartments in infected countries and in all cases where conditions are not conducive to clinical expression of KHVD, targeted surveillance needs to be continued at a level determined by the Competent Authority on the basis of the likelihood of infection.

Article 2.1.17.7.

Importation of live aquatic animals from a country, zone or compartment declared free from koi herpesvirus disease

When importing live aquatic animals of species referred to in Article 2.1.17.2. from a country, zone or compartment declared free from KHVD, the Competent Authority of the importing country should require an international aquatic animal health certificate issued by the Competent Authority of the exporting country or a certifying official approved by the importing country attesting that, on the basis of the procedures described in Articles 2.1.17.4. or 2.1.17.5. (as

applicable), the place of production of the *commodity* is a country, *zone* or *compartment* declared free from KHVD.

The *certificate* should be in accordance with the Model Certificate in Appendix 4.1.1.

This Article does not apply to *commodities* referred to in point 1 of Article 2.1.17.3.

article 2.1.17.8.

Importation of live aquatic animals for aquaculture from a country, zone or compartment not declared free from koi herpesvirus disease

- 1. When importing, for *aquaculture*, live *aquatic animals* of species referred to in Article 2.1.17.2. from a country, *zone* or *compartment* not declared free from KHVD, the *Competent Authority* of the *importing country* should assess the *risk* and if justified, apply the following risk mitigation measures such as:
 - <u>a)1.</u> the direct delivery into and <u>lifelong</u> holding of the consignment in <u>biosecure</u> quarantine facilities for;
 - the continuous isolation of the imported aquatic animals and their first generation progeny from the local environment; and
 - <u>b)3.</u> the treatment of all effluent and waste materials in a manner that ensures inactivation of koi herpesvirus.
- 2. If the intention of the introduction is the establishment of a new stock, international standards, such as the Code of Practice on the Introductions and Transfers of Marine Organisms of the International Council for the Exploration of the Seas (ICES), should be followed.
- 3. For the purposes of the Aquatic Code, the ICES Code may be summarised to the following main points:
 - a) identify stock of interest (cultured or wild) in its current location;
 - b) evaluate stock health/disease history;
 - c) take and test samples for KHV, pests and general health/disease status;
 - d) import and quarantine in a secure facility a founder (F-0) population;
 - e) produce F-1 generation from the F-0 stock in quarantine;
 - f) culture F-1 stock and at critical times in its development (life cycle) sample and test for KHV and perform general examinations for pests and general health/disease status;
 - g) if KHV is not detected, pests are not present, and the general health/disease status of the stock is considered to meet the basic biosecurity conditions of the importing

<u>country</u>, <u>zone</u> or <u>compartment</u>, the F-1 stock may be defined as KHVD free or specific pathogen free (SPF) for KHV;

h) release SPF F-1 stock from quarantine for aquaculture or stocking purposes in the country, zone or compartment.

This Article does not apply to *commodities* referred to in point 1 of Article 2.1.17.3.

Article 2.1.17.9.

Importation of live aquatic animals for processing for human consumption from a country, zone or compartment not declared free from koi herpesvirus disease

When importing, for processing for human consumption, live aquatic animals of species referred to in Article 2.1.17.2. from a country, zone or compartment not declared free from KHVD, the Competent Authority of the importing country should assess the risk and, if justified, require that:

- 1. the consignment be delivered directly to and held in *quarantine* facilities for slaughter and processing to one of the products referred to in point 1 of Article 2.1.17.3. or other products authorised by the *Competent Authority*; and
- 2. all effluent and waste materials from the processing be treated in a manner that ensures inactivation of koi herpesvirus.

This Article does not apply to *commodities* referred to in point 1 of Article 2.1.17.3.

Article 2.1.17.10.

Importation of live aquatic animals intended for use in animal feed, or for agricultural, industrial or pharmaceutical use, from a country, zone or compartment not declared free from koi herpesvirus disease

When importing, for use in animal feed, or for agricultural, industrial or pharmaceutical use, live *aquatic animals* of species referred to in Article 2.1.17.2. from a country, *zone* or *compartment* not declared free from KHVD, the *Competent Authority* of the *importing country* should require that:

- 1. the consignment be delivered directly to and held in *quarantine* facilities for slaughter and processing to products authorised by the *Competent Authority*; and
- 2. all effluent and waste materials from the processing be treated in a manner that ensures inactivation of koi herpesvirus.

This Article does not apply to *commodities* referred to in point 1 of Article 2.1.17.3.

Article 2.1.17.11.

Importation of aquatic animal products from a country, zone or compartment declared free from koi herpesvirus disease

When importing aquatic animal products of species referred to in Article 2.1.17.2. from a country, zone or compartment declared free from KHVD, the Competent Authority of the importing country should require an international aquatic animal health certificate issued by the Competent Authority of the exporting country or a certifying official approved by the importing country attesting that, on the basis of the procedures described in Articles 2.1.17.4. or 2.1.17.5. (as applicable), the place of production of the consignment is a country, zone or compartment declared free from KHVD.

The *certificate* should be in accordance with the Model Certificate in Appendix 4.2.1.

This Article does not apply to *commodities* referred to in point 1 of Article 2.1.17.3.

Article 2.1.17.12.

Importation of aquatic animal products from a country, zone or compartment not declared free from koi herpesvirus disease

When importing aquatic animal products of species referred to in Article 2.1.17.2. from a country, zone or compartment not declared free from KHVD, the Competent Authority of the importing country should assess the risk and apply appropriate risk mitigation measures.

In the case of dead *aquatic animals*, whether *eviscerated* or uneviscerated, such risk mitigation measures may include:

- 1. the direct delivery into and holding of the consignment in biosecure/quarantine facilities for processing to one of the products referred to in point 1 of Article 2.1.17.3. or other products authorised by the *Competent Authority*;
- 2. the treatment of all effluent and waste materials in a manner that ensures inactivation of koi herpesvirus.

This Article does not apply to *commodities* referred to in point 1 of Article 2.1.17.3.